Cold Climate Housing Research Center

CCHRC

Hybrid Micro Energy Program
Award No. 01163
Quarterly Report: January 1, 2013 to March 31, 2013

Per the terms of the Hybrid Micro-Energy Program (HMEP) grant agreement, the three priority renewable energy systems to be evaluated are:

A small scale biomass combined heat and power (CHP) system that can convert wood into heat and power for use in small scale loads including residences, small community facilities, and potentially small communities and/or neighborhoods.

This portion of the grant was completed with the submission of the final report on March 29th, 2012.

A ground source heat pump project that includes solar thermal collection to recharge the ground

The heat pump at Weller is up and running. Now that the system is operating consistently, CCHRC is able to troubleshoot the data monitoring system.

The website, http://www.cchrc.org/weller_school/, has some of the data from the heat pump streaming. The solar panels are collecting a little heat and increasing the COP of the heat pump, once the heating season is over the school district will work to optimize the heat transfer from the solar panels.

CCHRC also worked with the Denali Commission during the first quarter to devise an additional ground source heat pump project that will add value to recent ground source heat pump work prepared through partnerships between the Denali Commission, AEA, ACEP, NREL, AHFC, and CCHRC.

A combined solar photovoltaic (PV) and wind system integrated into an energy efficient load design.

This portion of the grant was completed with the submission of the final report on March 29th, 2012.